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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/822,181	04/02/2001	Donald R. Ellis	57983.000014	7313

7590 11/19/2004

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EXAMINER	
VINCENT, DAVID ROBERT	
ART UNIT	**PAPER NUMBER**
2661	

DATE MAILED: 11/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/822,181	ELLIS ET AL.	
	Examiner	Art Unit	
	David R Vincent	2661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-24 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-24 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Claim Objections

1. Claims 6, 12, 18, and 24 are objected to because of the following informalities: For example, the listed claims specify "separating the second data packet by customer", and this should be changed to e.g., "separating the second data packet by the customer's edge device". Where the packet exits the carrier network, is where the address translation, address swapping, or de-encapsulating takes place. This is typically done by edge an router, a proxy, a gateway, etc. However, the applicant specifies that the user or customer never needs to know about the second packet (packet comprising a carrier/SSP/VP address) implying that the translation is not done at the customer's premises (pg. 11, lines 18-24). Therefore the applicant should consider this when amending. Appropriate correction is required.

Drawings

It should be noted that the drawings are very difficult to read and the applicant may want to increase the size of the figures.

Specification

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the

range of **50 to 150 words**. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Points to consider if an amendment is filed

Regarding the terms, swap, encapsulate, and second packet:

The IP datagrams/packets use IP addresses which are either 32 bits (IPv.4) or 64 bits (IPv.6) in length. The IP packets are passed down to the link layer (LL) and layer-2/Ethernet addresses are appended during the encapsulation (conversion into frames). In an Ethernet environment, the LL is broken down into a Logical Link Control layer (LLC) and a Medium Access Control (MAC) layer. An Ethernet address can be referred to as a physical/hardware address because it comprises of the MAC address. This hardware address is derived from the network interface card (NIC) identity. In other words, any source/host which is connected to a LAN (local area network) will have a NIC installed in it. The MAC address, comprises of a 23/24 bit vendor (manufacturer of the NIC) ID and a 23/24 bit serial number. When communicating with hosts attached to physical networks, physical network addresses must be used. In other words, ultimately the hardware/MAC addresses must be known in order to communicate with the hosts.

In order to route a packet, the layer-2 address must be known. In order to route a packet through, e.g., the Internet, the packet will pass through many different routers before it reaches its final destination. This is referred to as *indirect routing* because there are intermediate nodes. When a packet is received at a router/gateway, the router will refer to its *routing table* in order to determine the best/least-cost path to send the packet on. Typically a router reads the destination IP address and compares it to the entries in its routing table. Then the router will know which port to send the packet out on and which destination to send it to. Each router has its own address and as a packet gets routed from one router to another, the individual router addresses will be used for layer-2 destination address. When a packet is sent out on an indirect route, the layer-3/IP address which specifies the final destination does not change. However, the layer-2 destination address will change at each router/hop/node.

Whenever, a packet/frame is processed at a node, and given a new destination address (for the next hop), a new CRC has to be calculated and appended. In doing so, it can be said that the packet that is received is not the packet that is transmitted and that a "first packet" is received and "second packet" is generated and sent out.

Due to the inherent features of how devices comply with e.g., the Internet, ATM, or VLAN protocols, claims such as 1-2, 4, 7-8, and 10 are anticipated by networks using any of these protocols. These claims do not specify using a SAN (term of art) nor do they bring out what the applicant refers to as being the point of novelty in the background/summary. However, in order to perform compact prosecution, the claims were read in

light in the specification and rejected with art that performs the operations disclosed in the specification.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless -
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-24 are rejected under 35 U.S.C. 102(e) as being anticipated by Latif (US 2003/0091037 A1).

As shown in Figs. 6A, 8-9, 11-14C, Latif discloses translating a customer address of a second packet (see above reasoning; or see e.g., translation, ¶ 9, 65; or encapsulation, ¶ 66) using a translation module (edge device which receives packet and converts it, Figs 11-12 using the various name servers, e.g., 65-70, address table, 73-74), addresses corresponds to a location (e.g., local/global significance, ¶ 63-64, 66-67, 71, 75; address breakdown of how parts of addresses have local significance, ¶ 82; IANA, ¶ 96; directing storage commands based on addresses, ¶ 110; also service

providers are assigned blocks of e.g., IP addresses; sharing switch addresses, ¶ 70, 72), receive a first packet (sections 1-112; packet transmitted by source; FC packet shown in top right part of Fig. 6A; means for receiving a first packet and converting it into an IP packet, ¶ 9; also see above reasoning), comprising a header containing a customer source information (¶ 69; source SoIP socket address, Fig. 13; translation, ¶ 39; source port, ¶ 54; source/FC address, Figs. 11-13; or see above), swapping said source and destination information (see above process of how nodes route packets or frames, sections 1-112, especially e.g., translation, ¶ 39), form a second packet (Figs. 6A, or 11-13, sections 1-112, especially, ¶ 39; or see above), processing based on second header (routing based on e.g., IP or Ethernet addresses), restore the source and destination information (performing the inverse operation at the destination, packet leaving IP/carrier network, Figs. 11-12; change address back to original source address as opposed to last node which routed packet being used as the source address; sections 1-112, especially e.g., ¶) to recover the first packet (it can be argued that the first packet is never recovered since every node receives one packet, reads and processes information from it and then creates a new packet with a new CRC code to transmit, however, this will be read as merely replacing the

original addresses to create a packet that is similar in content to the packet that was transmitted by the original source), customer address is a shared storage network address (SoIP address, Fig. 2; FC address, Fig. 11; SANs, ¶ 4, 6, 8, 11-12, 33-36, especially ¶ 34; Fibre Channel address, ¶ 66, 67), storing the second data packet in a shared storage network (e.g., ¶ 60-61, 83), removing/separating second packet by customer (destination performing inverse operation, Figs. 11-12 or packet being sent up the OSI protocol stack and be de-encapsulated), as specified in claims 1-24.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David R Vincent whose telephone number is 571 272 3080. The examiner can normally be reached on M-TH.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kenneth Vanderpuye can be reached on 571 272 3078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

11/13/04
David R Vincent
Primary Examiner
Art Unit 2661

November 11, 2004